# IMPROVING SPACE TRAINING

## A Career Model for FA40s

**By MAJ Robert A. Guerriero**

Training is the foundation that our professional Army is built upon. Starting in pre-commissioning training and continuing throughout an officer's career, achieving and maintaining excellence in today's Army is a constant learning process. Formal training courses, in conjunction with unit training, training exercises, professional development programs and senior-leader mentorship are key components in the development of confident and competent officers. This is as true for FA40 Space operations officers as it is for any branch or specialty in the Army. FA40 training has continued to evolve and improve since Space operations was established as a Functional Area in 1998. As we continue to refine our Space training process, we should ensure that the FA40 career model supports the training and development of our Space officers throughout their careers.

There is no doubt that the nation and the Army need well-trained Space professionals. Under Secretary of the Air Force Peter B. Teets, the Department of Defense's Executive Agent for Space, recently stated that in order for the United States to achieve Space dominance, we need a strong and enduring commitment in several areas. "The first, and unquestionably the most important, is the development and maintenance of a strong professional cadre of military and civilian government personnel," he said.[1] The Army also recognizes the need for a trained cadre of Space professionals. The Army Space Master Plan states, "The Army must have a well-trained and innovative cadre of Space-literate personnel who understand warfighting requirements and the benefits that Space can bring to the Army."[2] The establishment of Space operations as a Functional Area was a first step toward achieving this goal. The FA40 community has made substantial progress in establishing a sound training program to build its cadre of Space-literate personnel. A critical component of this training program that we must cultivate is the Space experience that will make our professional cadre true Space experts.

The current training program for FA40s consists of the 11-week Space Operations Officer Qualification Course (SOOQC) taught in Colorado Springs, Colo. This course will soon be expanded to a 12-week curriculum. SOOQC is an excellent introduction to a wide range of Space systems and Space capabilities, and also provides an introduction to the roles and responsibilities of FA40s. A planned enhancement of the SOOQC is the incorporation of the Air Force's Space 200 course. This will provide an even better understanding of Space capabilities and offer insights into joint Space operations. The SOOQC is a good start for an FA40, but it does not, nor was it designed to, produce a Space expert. An FA40 who completes SOOQC has a solid base of training to build upon, and is prepared to continue the training process to become a Space expert. SOOQC produces Space officers with a great breadth of knowledge, so the challenge for the Army Space community is to increase the depth of this knowledge in every FA40.

Following SOOQC, many FA40s are assigned as Space operations officers (SOO) on corps and Army staffs, or as members of Army Space Support Teams (ARSST). With the rapid transition from divisions to

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| FA-40 Officer Career Path | | |
|---|---|---|
| 1st Assignment | 2nd Assignment | 3rd Assignment + |
| National Organization<br><br>Space Support Element<br><br>ARSST Leader | Space Operations Officer (Corps)<br><br>Space Support Element Leader<br><br>National Organization<br><br>SMDC/ARSTRAT | Army Staff<br><br>Joint Staff<br><br>SMDC/FWC-DCD<br><br>National Organization<br><br>SMDC/ARSTRAT |

Table: Potential FA40 Officer Career Path

Units of Employment (UE), many FA40s are also being assigned to these staffs as members of Space Support Elements (SSE). These are some of the most important and visible positions within the Army Space community, because the SOOs, SSEs and ARSST leaders are the ones who must deliver our Space capabilities to the warfighters. The value of FA40s to the Army will in large part be judged by what these officers can bring to the fight.

There is some formal Space training for FA40s that can be found outside of SOOQC. The 1st Space Battalion, for example, has established a certification process for its ARSST leaders, and conducts individual and unit training to build Space skills. A collective training and staff integration program has also been established for SSEs. As the Army Space community gains more experience in employing Space capabilities, this training will continue to evolve and improve.

When an FA40 arrives at a corps or a UE, he or she is expected to be a Space expert from the start. FA40s working on a corps or UE staff generally don't have the luxury of being able to grow into their jobs, but must be immediately able to clearly and convincingly articulate the added value that they bring to the unit in terms of Space capability. A failure to do this has significant consequences for the individual, the unit and for the FA40 community as a whole.

An FA40 that cannot convince a corps or UE that Space capabilities enhance the unit's ability to accomplish its mission runs the risk of not being dedicated to providing Space support. This officer will likely be assigned other duties, with little time left to integrate Space into the staff planning process, or to develop professionally as a Space operations officer. This compounds the problem, because the FA40 loses the opportunity to master a highly specialized skill set, and that unit continues to have the false impression that there isn't a large benefit to be gained through Space capabilities. This situation also has implications beyond an individual Space operations officer being misutilized. The result of an assignment like this is that the FA40 in the field gets experience, but not Space experience. The FA40 community as a whole then suffers, through the lack of this Space experience from the field to develop and train our Space cadre.

Unfortunately, based on conversations with many FA40s, assignment of Space operations officers to areas outside of Space functions seems to be a systemic problem in Army units. This may be an indication that there are some shortfalls in the preparation of the FA40s who are expected to deliver Space support to the warfighter.

One shortfall that might contribute to this problem is in the area of national Space assets. A significant and critical portion of our Space capability is resident with national systems, yet for the most part the Army's professional Space cadre does not get enough exposure to these systems. Although national Space assets represent a subset of U.S. Space capabilities, we must understand the capabilities, limitations and means of employment of national assets just as thoroughly as we understand all other Space assets. Part of our credibility as Space experts is based on the fact that we have a working knowledge of all Space capabilities, not just some capabilities. An FA40 who understands and can employ all Space capabilities is in a much better position to describe the benefits of Space support than an officer with substantial gaps in knowledge concerning some constellations.

Another indication of a possible shortfall in the preparation and training of FA40s is in an August 2004, Govern-

*(See Training, page 52)*

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ment Accountability Office (GAO) study that examined the Department of Defense's Space human capital strategy and the status of efforts by all of the military departments to develop their Space personnel career fields. The report found the Defense Department lacking in its plan to develop Space professionals. The GAO report stated "Because the Army and the Navy lack a strategy to provide direction and focus for their efforts to develop their Space cadres…, it is unclear whether they will have sufficient numbers of Space-qualified professionals to meet future requirements in joint and service Space planning, programming, acquisition and operations."[3]

Whether the conclusions in this report are valid or not is an open question, but the point of this particular statement is accurate and points to a legitimate concern: If we do not develop and adhere to a strategy that produces a knowledgeable and experienced Space cadre, then we will not have enough Space professionals to meet our future requirements.

Both of these potential shortfalls – lack of exposure to some important Space systems and the lack of a clear long-term professional development strategy – can be overcome with a career model that provides Space training, experience and mentorship for every FA40 throughout their career. Becoming an expert on Space assets and their capabilities, and understanding how to integrate Space with operations, requires focused and dedicated effort over time. While formal training courses, annual seminars and individual professional development are important parts of this process, there is no substitute for hands-on, day-to-day Space experience. Cultivating this type of Space experience in our FA40s will put each one in a position to develop professionally as a Space expert for the Army. We must ensure that the FA40 career path gives every Space operations officer this opportunity, and this will keep the Army's Space cadre on a path to long-term success.

Space operations officers can learn many of the details of their profession through assignments to places where the majority of our nation's Space work is being done. This includes places like the National Reconnaissance Office (NRO), the National Geospatial-Intelligence Agency (NGA), the National Security Agency (NSA), satellite program offices such as the GPS or MILSTAR program offices, our Space launch facilities and any of our ground stations that support satellite constellations.

These Space organizations and facilities are filled with our country's true Space experts who have spent years designing, building, launching, operating and exploiting every satellite that the United States has ever launched. Working in a Space organization or Space support facility can give an FA40 first-hand experience in what a satellite is capable of, how it can be employed effectively and how it is supported from the ground.

Once an individual is assigned to any one of these Space organizations, the information exchange is excellent. Information on almost any aspect of any satellite built, operated or employed by that organization is readily available. There are internal training programs to educate personnel in the organization and help to maintain their skills.

Many of the assigned military and civilian personnel have worked on multiple Space programs during their careers, and can offer insights into a wide range of Space capabilities. An FA40, eager to learn, can quickly become a Space expert. Furthermore, these organizations embrace the idea of providing Space support to the warfighter. They welcome ideas from people with operational experience, and will take the time to make sure that anyone who needs to leverage their particular capability has the knowledge to do so.

An assignment to one of these organizations, combined with the operational knowledge that FA40s already possess, will prepare an officer to truly leverage as much as possible from Space assets and deliver Space support to the warfighter. Assignments to Space organizations will provide our Space cadre with a depth of knowledge that can never be gained from training courses.

Even officers who are not assigned to Space organizations can take advantage of the training they offer. The NRO and NGA offer classes on each of their different types of satellites, on an approximately quarterly basis. These classes are about two days each, and go into detail about every aspect of that particular constellation. The majority of the information can be presented at security classification levels that FA40s already have. The Army Space community should send officers on a regular basis to attend these classes. There are similar classes offered at many ground stations that should also be attended by FA40s. The NRO classes can be facilitated through the Operational Support Office or the Army Coordination Team at the NRO, and other organizations have similar outreach divisions that can assist.

A career model that will ensure that each FA40 is properly trained is critical to the success of

the Army Space community. The career model proposed in this article would annually place about one-third of new FA40s into national organizations, program offices, or Space support facilities and one-third into ARSST leader positions. The remaining third would go to corps or UE staffs, and serve under a senior FA40 who is already an expert in the employment of Space systems. We must pursue the right number of personnel positions in the right places to support this career model and the number of positions should grow as our Space community grows. Placing Army officers in Space organizations is no less critical than placing Space officers in Army units. The long-term success of our Space cadre depends on a steady supply of experience from these Space organizations.

A good second Space assignment for an FA40 would be as a Space operations officer or as the senior member of an SSE. The senior officer in an SSE, after gaining experience in applying Space capabilities at a Space organization or as an ARSST leader, can then train and mentor the new FA40s on the team. Similarly, an ARSST leader in a first Space assignment can learn from an experienced Space operations officer. This career path model ensures that there is a constant source of Space training and Space professional development throughout an FA40's career.

Another advantage to this model is that while it ensures that there is a steady flow of experienced Space professionals moving into key Space positions in the Army, it also infuses operational experience into the national-level organizations and program offices where emerging Space capabilities are being designed and built.

The organizations that are developing our next generation of satellites need input from Army officers with solid operational experience. The Army is depending on its professional Space cadre to speak for the warfighter at the national level. The table on page 29 illustrates this potential FA40 career model.

Another important benefit of placing a trained FA40 into a Space operations officer or SSE leader position is that the officer can immediately educate the unit leadership about what Space support can and can't do. To do this effectively, an FA40 must have a solid understanding of the capabilities and limitations of all Space assets to include national assets, and needs the depth of understanding that comes from experience, not from course attendance or reading Space-related publications. The unit commander and staff can then clearly understand how to employ a Space operations officer or Space Support Element, and what benefit the FA40 brings to the battlefield.

The risk with this career model is that we cannot afford to have FA40s in Army units that are not serving in a Space capacity. Misutilization of Space operations officers in the field will interrupt the flow of Space experience back into the FA40 community. This model does not eliminate the risk of FA40s assigned to Army units being used primarily for non-Space functions, but it ensures that every Army unit has at least one experienced FA40 to articulate the benefits of dedicated Space personnel.

Unfortunately, even after being thoroughly informed as to the capabilities and benefits of Space support, some units will choose to use their assigned FA40(s) in some function other than Space Operations as their primary area of responsibility. An officer in a position like this should be reassigned as soon as possible, with no replacement. The vacancy should not be filled until the unit realizes that they need Space support and requests another FA40. The misutilization of an FA40 with a highly specialized skill set interrupts that officer's professional development at a critical point in his or her career, and puts that officer in a poor position to train others in the future. Furthermore, misutilizing a scarce resource like an FA40 denies other units the ability to effectively leverage Space support.

The long-term success of the Army Space Operations community depends on our ability to develop a well-trained cadre of Space professionals. As the Army's Space experts, we must ensure that every FA40 possesses the skills necessary to leverage all of our Space assets. We have made great strides toward achieving this already, and Space training and professional development continue to evolve, adapt and improve.

One way to continue to improve our Space training is to establish and adhere to a career model that gives every Space operations officer the opportunity to train and develop as a Space professional. This strategy will provide our Space cadre with a depth of knowledge that matches our breadth of knowledge.

*END NOTES*

*1 Teets, Peter B., Speech at the 2004 Air and Space Conference and Technology Exposition, 14 Sept. 04.*

*2 Army Space Master Plan, p. ES-2.*

*3 Defense Space Activities: Additional Actions Needed to Implement Human Capital Strategy and Develop Space Personnel, United States Government Accountability Office, August 2004, p. 20.*

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